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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,464	06/01/2001	Yoshiaki Akamatsu	010464	8439

23850 7590 08/26/2003

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EXAMINER

RAEVIS, ROBERT R

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant N .

09/870,464

Applicant(s)

AKAMATSU ET AL.

Examiner

Robert R. Raevis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5/1, 5/2 is/are rejected.
- 7) ☒ Claim(s) 3, 5/3, 4, 5/4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

### DETAILED ACTION

1. Claims 1 and 5/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Applicant's Statement or ASME (Article AK provided by Applicants).

Applicants describe (page 1, last paragraph) attaching a tool to a spindle, and testing the amount of runout of the tool, relating the runout measurement to runout of the spindle. The ASME article (Figure 2(a)) teaches the same, where the "Perfect workpiece" is a tool.

Neither the Statement nor ASME state that the measurement device/probe is on the base of a machining area, and do not refer to runout diagnosing means.

As to claim 1; it would have been obvious to test the runout within a machining area because like all machines bearings wear necessarily requiring testing after initial use. In addition, it would have been obvious to provide a indicator to indicate when a measurement suggests a defective bearing because indicators allow an operator to react to the indication without any need for mental computations/concerns.

As to claim 5/1; runout testing is carried out at many different speeds.

2. Claims 2 and 5/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Applicant's Statement or ASME (Article AK provided by Applicants) as applied to claim 1 above, and further in view of either Iijima et al or Elsing.

As to claims 2 and 5/2; it would have been obvious to employ a noncontact sensor as either Applicants' (of page 1) or ASME's sensor because either Iijima (sensors 42, 43; col. 3, lines 29-32; col. 4, lines 54-64) or Elsing (col. 3, lines 37-45)

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teach use of a particular noncontacting probes to accurately measure displacement to provide an indication of runout. Applicants' and ASME's generic suggestion of a sensor is suggestive of any particular known sensor.

3. As to Applicant's REMARKS, consider the following:

As to p. 3, last paragraph; one of ordinary skill would not hold the detector in his hand, as the sensor must be steady to provide for accurate measurements, suggestive of placing the sensor on a available support surface. In addition, note that the ASME article expressly locates a gage on a machine surface in Figure 1.

As to p. 4, top two lines, the prior art suggests comparison with a standard to check if the machine is within a predetermined standard tolerance. (See p. 1, last full paragraph of written specification.)

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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4. Claims 3, 4, 5/3 and 5/4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 703-305-4919. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

*Raevis*

RAEVIS

AJ2856